

Contemporary Psychology

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Conscience and the Will Rediscovered

Karl Mierke

Wille und Leistung. Göttingen: Verlag für Psychologie, Dr. C. J. Hogrefe, 1955. Pp. 295. DM 28.60.

Reviewed by DAVID C. McCLELLAND

Dr. McClelland, perhaps best known for *The Achievement Motive* (1953), is now, after many years at Wesleyan University, Professor of Psychology at Harvard University in the Department of Social Relations. He says that he is "determined to be tough-minded about tender-minded problems (like Personality) and to bring order and measurement to the understanding of human motivation without losing all the subtleties of the phenomena."

TO READ an account of contemporary German psychological research like Mierke's report of his studies of will and achievement is—for an American at least—to visit a strange world, a world in which statistics have not as yet been invented, introspective (or phenomenological) reports are given priority over experimentation, and the law of parsimony does not prevail. For Mierke experimentation plays second fiddle; its use must be justified (p. 7) and its role seems to be largely one of illustrating what you already know on other grounds to be true. And what you know to be true should be described as discursively as is necessary to give an esthetically satisfying (rather than an economical) picture of psychic functioning. So Mierke feels no compunction about inventing as many new concepts as he needs (*Leistungswille*, *Leistungsethos*, *Leistungseros*,

Leistungswissen, *Leistungsgewissen*, *Leistungspotential*) to describe various aspects of the relationship between motivation and performance.

The concepts Mierke chooses come fairly directly from inner experience. Every act is the product of the "will to perform," which is, in turn, the product of what he calls the *Leistungswissen*, an untranslatable concept which will be loosely referred to here as the *achievement conscience* and which in his own words refers to a "representation of the autonomous ego," "the controlling and organizing focus of the personality and its values" (p. 62). The 'achievement conscience' may be modified by unconscious drives and emotions, but its job is to prevent these from erupting directly into action. Mierke is definitely among those German psychologists who, as Allport has recently pointed out, have continued to follow in the tradition of Leibnitz in conceiving the core of the personality as an autonomous ego which "has free choice in deciding between alternative motives" (p. 75). As such, it is a representative of "higher" moral strata of the personality structure.

If Mierke's book merely presented another way of describing the psyche, much as it might be welcomed as a variant on the now-dominant Freudian



KARL MIERKE

scheme, it would hold little interest for the American reader. But the fact is that his general view of personality structure has led him to perform a number of experiments which it would never occur to an American to design and which, therefore, despite their methodological weaknesses, are novel and stimulating. For example, to demonstrate his point that 'achievement conscience' is a more powerful determinant of action than unconscious achievement drives, he reports three different kinds of experiments.

In the first, he is interested in the effect on performance of different types of aroused motives. The tasks he uses call for close attention and a high degree of concentration. For example, the subject views sets of two-place numbers, which at a red signal he must add, or at a green signal subtract, and then perhaps

multiply the sum or difference by the number of red or green flashes. Under normal instructions, the subject is simply asked to perform the task according to the directions. Then he is asked to do a somewhat different task of the same sort but with the intent of producing a record performance in competition with all the other members of his group. Competition represents for Mierke an appeal to unconscious drives and emotions from the "lower" regions of the personality. Finally the subjects are asked to surpass even their record performance—to use up their last ounce of energy for the honor of the group and in the name of science. He finds that the appeal to a competitive urge produces better performance, but that the appeal to obligation, honor, or 'achievement conscience' produces the highest performance of all. Unfortunately his results are not completely convincing since all ten of his subjects were exposed to the three incentive conditions in the order described without counterbalancing, and he does not bother with statistical tests of significance. Still he has raised an interesting question: What are the effects on performance of appeals to different kinds of motives or values? Would there be nationality differences in the types of motives which lead to the highest performance?

In the second group of experiments, Mierke uses hypnosis to demonstrate that performance guided by the conscious ego is superior to performance under the influence of unconscious drives. Here he shows that work output on the ergograph can be increased by appealing to the subjects' competitive urge in the waking state, but that the same appeal in the hypnotic state—to "one's honor as a sportsman to surpass others"—does not increase work output. In fact the work curve in hypnosis declines more or less regularly, unlike the waking work curve which shows little spurts from time to time, indicative, says Mierke, of conscious efforts of will. Again unconscious urges (as revealed in performance under hypnosis) come off second best to the conscious willing ego, active in the waking state.

In the third group of experiments, Mierke tries to demonstrate that the ego is not simply a passive product of past experience but has certain powers to

transform that experience. He undertakes to show that "unused functions" can be quite rapidly brought to full efficiency if the ego "sets its mind to it." In one instance he finds that, if subjects do not practice Morse code with blinkers but with intermittent sounds, they can quite quickly bring their "neglected" performance with blinkers up to the level achieved with sound, and *vice versa*. In another instance he finds that subjects who have never had any practice recognizing or reproducing difference tones can learn to do this quite rapidly. In both cases he feels he has demonstrated that man has the capacity to pick up and utilize undeveloped functions—a capacity which he refers to as the autonomous ego and regards as the exclusive characteristic of man in comparison with the lower animals. Most American psychologists would simply reinterpret these experiments in terms of the conditions governing transfer of training under different sets, and would consider Harlow's work as sufficient evidence that animals can similarly effect transfers.

OTHER experiments in the book deal with habit as a form of "imprinting" which saves the 'achievement conscience' from overwork (this treatment of habit is quite Jamesian), with the effects of "excessive demand" on performance, with experiences accompanying performance which may be described as immediate, forward-looking or backward-looking, and with "objectification," or the projection of subjective feelings into objects in the environment.

In each of these studies there is a kernel of interest for the American reader. For example, Mierke points out that "excessive demand"—asking the subject to perform faster than he possibly can by speeding up stimulus presentation—is really theoretically different from mere frustration in the sense of blocking or interfering with performance. He finds evidence for three phases in his subjects' reactions to excessive demand. In the first stage, the subjects become upset and angry, and tend to make too many errors of all sorts; in the second stage, they regress or "give up," making few or no responses; in the third stage, they may begin to recover and try to discover new ways of meeting the demands placed

upon them. He finds evidence for these stages in the phenomenological reports of his subjects, in their expressive movements (he includes pictures of several subjects in various stages of performance "shock"), and in their error curves, although here careful examination of his data suggests some of the same difficulties that Bills ran into years ago in attempting to define the precise limits of performance blocks.

In another study Mierke demonstrates that, if you put pressure on subjects by criticizing them and suggesting that they should work faster, the effect on their performance depends on whether what they are doing was freely chosen or assigned to them. If the subject has established an accuracy set, performance pressure increases *accuracy* for voluntary activities and *speed* for assigned tasks. Here is a problem that one can hardly imagine an American psychologist setting himself to study, yet it is certainly interesting enough in itself, and it provides ample evidence that even a quite uncongenial theoretical slant can lead to some ingenious research designs.

Finally, Mierke has extended the well-known series of experiments he began in the early thirties on the way in which things tend to acquire as objective properties the experiences we have had with them. Originally he showed that children tend to increase their liking for colored sticks with which they had been successful in making things and to dislike more those with which they had been unsuccessful. Now he reports results on the objectification of *volitional* properties. Subjects tended to like better sticks that they had been using, without specific success experiences and with familiarity equated, a finding that suggests that the sticks had acquired a certain 'demand' or 'volitional' quality somewhat analogous to Lewin's valences. Or, if subjects had been having difficulty performing with one of two identical pieces of apparatus, they tended to avoid it and to consider it "balky" and "troublesome," even though rationally they accepted the fact that the difficulty lay with themselves rather than with the machine. For Mierke these experiments have to do with the influence of unconscious drives on the perception of the world and he argues that the freer we are from such "objectification," the more mature we are and

the more under the guidance of the 'achievement conscience.' (Mierke does not agree with those Gestalt theorists who find that value properties belong phenomenologically to objects, whereas motive properties are referred to the self. His subjects report some confusion on this point.)

TO SUM UP. For Mierke achievement or performance is determined by three factors: unconscious needs, imprinted habits, and "conscience"; and the great-

est of these is conscience, for it molds and guides the other two and belongs to the higher moral strata of personality. The research he has mustered to support his point of view will not be accepted at its face value by American psychologists because of defects of method, but the Americans, if they are wise, will not reject the whole enterprise out of hand but follow up the many novel ideas suggested by Mierke's work. A visit to a new and strange world can be very refreshing to culture-bound psychologists on this side of the Atlantic.

selections interesting, if not peace-mongering.

NO one will be surprised to discover that the contributors in the fourth section turn out to be in real unanimity with respect to the proposition that it is in the public interest for clinical psychologists to engage in the independent practice of psychotherapy. There is even fair agreement among the group concerning the kind of training that is required for psychotherapeutic activity, and this despite repeated statements to the effect that therapy is an art, that therapists are born, not made, and that elusive personal factors are crucial to its successful use. There is also agreement about the pressing need for licensing of clinical psychologists.

As there always seem to be such logically compelling reasons for doing exactly what we want to do, some readers—and the reviewer is one—will miss balancing contributions from the drummers of other subcultures in psychology and psychiatry. To represent adequately the public interest it might have been desirable to include a spokesman for the large group which holds that individual psychotherapy is a blind alley for psychology, or a spokesman for the disenchanted minority which questions the evidence of the efficacy of psychotherapy. It might even seem to some that psychiatry is poorly represented in that none of the material purporting to present its point of view was written expressly for the book, while most of the contributions from psychology were written or rewritten for the purpose at hand.

Few psychologists will be able to read the 'official' pronouncements of organized psychiatry without a rise in tension-level, but most psychologists will find somewhere in the book satisfying answers to these pronouncements. Fortunately, perhaps, the great majority of members of our society, in whom reside the forces that will ultimately decide these issues, will read neither the pronouncements nor the responses they evoke. Jurisdictional disputes are rarely viewed with sympathetic understanding. But for those psychologists with strong involvement in the issues of psychotherapy, status, and sovereignty, the book should have great interest and appeal.

The Lions and the Unicorns

Maurice H. Krout (Ed.)

Psychology, Psychiatry and the Public Interest. Minneapolis: University of Minnesota Press, 1956. Pp. xv + 217. \$4.00.

Reviewed by GEORGE W. ALBEE

Dr. Albee is Professor of Psychology at Western Reserve University, although just now on leave with the Joint Commission on Mental Illness and Health (Cambridge, Mass.) as director of the task force concerned with the manpower problem in the professions that deal with mental health. He himself believes that psychologists serve better in research than in private practice.

THE organization of this book is straightforward. First of all there is an introductory section in which three contributors summarize well the social context of the problems and conflicts of clinical psychology and psychiatry. Secondly, there is a section which purports to summarize the position of psychiatry toward clinical psychology. This second section reprints a statement approved in 1954 by the American Psychiatric Association, the American Psychoanalytic Association, and the American Medical Association; it also reprints a letter written in 1954 from the chief medical director of the VA to all VA medical installations on the subject of the functions of clinical psychologists; finally, it reprints two speeches delivered in 1952 and 1953 by an individual psychiatrist on the subject of relations with psychology. The third section contains a series of statements from psychologists employed in "collaborative situations."

The fourth and longest section, occupying half the book, is largely a series of essays presenting the ideological position of psychologists in independent practice.

The major burden of the discussion in the book is concerned with the questions that arise around the issue of the independent practice of adult psychotherapy by clinical psychologists. Few of the arguments will be new to most readers, though there is probably some value in bringing them together in one place. Much of the writing is spirited even if a number of the contributors have almost exactly the same things to say.

The primary objective of the book, according to the preface, is peace. In search of this goal a number of the contributors lead us perilously close to the brink of war. Those contributors who speak from "collaborative situations" are, on the whole, calmer, less defensive, and less strident than the contributors who speak from, or about, private practice. The latter group, most of whom write very well, see a number of dark motives behind psychiatry's dog-in-the-manger attitudes toward clinical psychology's public-spirited interest in the independent practice of psychotherapy. Some of their interpretations of these motives seem somewhat more aggressive and emotional than good therapeutic theory would indicate. This makes the

Mental Deficiency: Scientific Progress and Theoretical Confusion

N. O'Connor and J. Tizard

The Social Problem of Mental Deficiency. London: Pergamon Press, 1956. Pp. viii + 182. \$5.00.

R. F. Tredgold and K. Soddy

A Text-Book of Mental Deficiency. (9th ed.) Baltimore: Williams & Wilkins, 1956. Pp. xv + 480. \$8.50.

J. E. Wallace Wallin

Mental Deficiency: In Relation to Problems of Genesis, Social and Occupational Consequences, Utilization, Control and Prevention. Brandon, Vt.: Journal of Clinical Psychology, 1956. Pp. xv + 200. \$5.00.

Reviewed by GORDON N. CANTOR

Dr. Cantor is Assistant Professor of Psychology at the George Peabody College for Teachers. He came there from the Child Welfare Research Station at the University of Iowa, where he was trained in experimental work with children. He is now training doctoral candidates to undertake research in the area of mental deficiency. Besides mental deficiency he is interested in the psychology of learning.

MENTAL deficiency, a topic perennially neglected in America by the social and medical sciences, is now emerging from its role as an intellectual step-child. A virtual deluge of financial support from various governmental agencies is the major instigator of this change, the manifestations of which include surveys of completed research, increased research activity, and the organization of committees concerned with improving research and training in the area. At this eventful juncture, *CP* asks for a discussion of the "general state of knowledge in the field," plus a brief review of three recently published books. The answers to four questions about defectives will serve as this reviewer's response to the first mandate.

(1) *How do we define and categorize defectives?* In practice, an IQ less than 75 or 70 means mental deficiency to most American workers. There's clarity here, but not much utility. (What about

test reliability and validity, sensory and emotional disabilities, etc.?) The British use of a 'social' criterion lacks clarity and thus, necessarily, is lacking to some extent in utility. Everyone agrees, at least on paper, that multiple criteria are necessary, but no operationally clear definition of this sort has been offered. Not yet do we have an adequate definition of the key concept in the area! Pointless arguments about whether or not individual X is 'really' defective still plague the field.

There is, moreover, increasing uneasiness about the primary-secondary (endogenous - exogenous) dichotomy, mainly due to the implication that secondary deficiency ('brain-injury') is a unitary condition. Success in diagnosing organicity by psychological tests has been minimal. Indeed, one needs only reasonably good vision to pick out the organics that are identified reliably and validly by test techniques. The test behaviors of organics will doubtless continue to be of interest for theoretical reasons, but so far as individual diagnosis is concerned, a professional cul-de-sac seems to exist in this field, at least at present.

The label 'cultural-familial' is now gaining favor over 'simple' or 'garden-variety' deficiency, recognizing, as it does, the possible role played by the environment in the genesis of this condition.

The clinical types (conditions presenting homogeneous patterns of physical characteristics), mongoloids excepted, are extremely few in number; the possibility that their etiologies may shed light on the etiologies of other varieties of deficiency, however, makes them interesting to specialists. The trichotomy 'moron-imbecile-idiot' continues to be widely used, though the terms have been supplanted by gentler designations—such terms as 'educable-trainable-custodial,' 'mild-moderate-severe.'

(2) *Where do defectives come from?* The specific genetic mechanisms involved in cultural-familial deficiency remain obscure. Recent gains in knowledge about the etiologies of clinical types and secondary deficiency, however, have been substantial. The role played by single recessive or dominant genes in certain clinical types seems well established. Awareness of the noxious effects of various prenatal and postnatal phenomena (e.g., maternal rubella and syphilis, X-ray treatment during pregnancy, Rh incompatibility, lead poisoning, thyroid deficiency) should virtually eliminate them as contributors. Trauma—at birth or otherwise—is a convenient scapegoat for parents, but A. F. Tredgold (8) believed it actually accounts for only about five per cent of deficiency. In this connection, much attention has been paid to birth trauma Asphyxia due

to delivery complications or drug over-dosage is often cited, but recent evidence (1) on the relation of blood oxygenization level at birth to IQ at age five indicates that our understanding of this phenomenon is far from complete. The modern drugs, of inestimable value in treating certain forms of meningitis and encephalitis, are undoubtedly preventing deficiency due to these diseases in some cases but saving others who survive with unfortunate sequelae. The etiology of mongolism is still unknown and provides the field with its most widely debated and controversial issue.

(3) *Can we 'cure' or improve defectives?* 'Incurability' is included in the definition of deficiency by many workers. This usage introduces the concept of 'pseudo-feeble-mindedness' to account for those persons who were at one time but are no longer labeled defective. All sorts of pseudo-issues have resulted from this practice and now a preference is being expressed by some for making 'curability' an empirical rather than a definitional matter.

Treatment by glutamic acid and the operative technique of revascularization have turned out to be duds. Cretins, if suffering only from a thyroid deficiency and if treated early enough, can be cured or greatly improved. Recent evidence (9) indicates that a diet low in phenylalanine may result in clinical improvement in phenylpyruvic aments. Linus Pauling, the Nobel Prize winner who has become interested in the biochemistry of deficiency, predicts remarkable progress in this area during the coming decade (4). Experiments concerned with the effects of tranquilizers on the hyperactive, destructive behavior of lower-grade defectives are noteworthy mainly for the impressive placebo effects demonstrated. Improved medical treatment is resulting in lengthened life spans for lower-grade defectives in general and mongoloids in particular; as a consequence, the turnover in institutions housing large numbers of custodials and trainables will become increasingly small.

The role played by the environment in the genesis of cultural-familial deficiency has been of interest since the era of the heredity-environment controversy. The importance of genetic factors is recognized by practically all

workers today. McCandless (3), however, points out that, "Not even the most extreme of the hereditarians denies the powerful influence of the culture on intellectual functioning." Systematic evidence is still lacking, but there seems to be general agreement that improvement in the level of functioning of the typical familial defective can and does occur owing to environmental stimulation.

The likelihood that a disturbed defective might benefit from psychotherapy has traditionally been regarded as minimal, but the past decade has witnessed a marked change in this attitude. A recently published book of readings (6) attests the spurt of interest in this possibility and reflects the atmosphere of guarded optimism that currently prevails. That convincing evidence concerning the beneficial effects of therapy is lacking is not, of course, a problem peculiar to mental deficiency.

(4) *What is the psychologist contributing to the scientific understanding of defectives?* Until very recently, the psychologist working with mental deficiency has been, either of necessity or by preference, a service-oriented individual. As a consequence, psychological research on deficiency has been impressive neither for its quantity nor its quality. Since more research-oriented individuals are moving into the field and since administrators are becoming more tolerant of research, this discouraging picture is now improving.

Much of the concern in past research has been focused on patterns found in defectives' psychometric responses and on the utility of test results for classificatory and predictive purposes. The use of theory has been almost nonexistent. Two major exceptions have been Kounin's (2) Lewinian 'rigidity' approach and Strauss's (7) application of Gestalt perceptual theory to the study of 'brain-injured' children. The latter has influenced educational practice, but objective evidence on the efficacy of his techniques is badly needed.

Theoretical approaches to the study of learning, motivation, and personality in defectives would appear to this reviewer to provide the means for filling the largest research gaps now in existence. Indications are apparent that work of this nature is under way. It

seems likely that, due to such theoretical work and to more research on various therapeutic, educational, and rehabilitation techniques, the next few years will witness impressive increments in our knowledge of mental deficiency.

And now to the books.

NO DECADE has failed to see at least one new edition of A. F. Tredgold's *A Textbook of Mental Deficiency* since the book's first appearance in 1908. Tredgold's death coincided with the printing of the eighth edition in 1952. His son, Roger Tredgold, and Kenneth Soddy—collaborators on the ninth edition—are physicians connected with London's University College Hospital, as was the elder Tredgold. The newest edition largely retains the virtues and faults of the older ones. It remains the best single source of material on clinical types and the physical characteristics of defectives. The etiological discussions have been brought up to date. The plates are excellent, though at times peculiarly placed (e.g., pictures of clinical types located in the chapter on "psychological instability and moral deficiency"). Some of the extreme eyebrow-raisers from the earlier editions—particularly in the discussion of inheritance—have been eliminated (e.g., "morbid inheritance in the Jewish 'race'").

A serious attempt has been made to modernize the psychologically oriented chapters by the adoption of a "dynamic" approach. An instinct theory as a frame of reference continues to prevail, however, to the extent that most American psychologists will still feel uneasy about this material. Numerous statements presented as facts will also disturb most psychologists (e.g., "the only aspect of development that it is possible to quantify objectively in the case of the older child is that of intelligence").

The authors are admirably sensitive to some of the major criticisms leveled against positions taken in the earlier editions. They recognize that the use of social criteria only in defining deficiency has some limitations. The view that this definition is still the best they stoutly defend. They note the lack of utility in the theory of a "psychopathic diathesis," a favorite notion of the elder Tredgold. Their appraisal of the role played by the

environment, broadly conceived, is considerably more realistic. A useful section containing case descriptions of autistic children has been added, and a new chapter on family problems hits many of the high points, although it lacks the detailed coverage found in Sarason (5).

Some of the chapter titles and subheadings are quite unusual. The use of the term *Clinical Types* in the chapter on *Simple Amentia* is confusing. Does the title *Genetic Amentia* for the chapter on primary clinical types imply that "simple amentia" is not genetic?

The authors' sentence structure is at times exceedingly awkward. The book is poorly printed and contains many typographical errors.

The *Text-Book*, intended for medical consumption, is strongest in those areas that are of most concern to the physician. The psychologist will benefit from a study of these sections, but he will want to turn elsewhere for discussions of the psychological aspects of mental deficiency.

THE AUTHORS of *The Social Problem of Mental Deficiency*, O'Connor and Tizard, are psychologists in the Medical Research Council's Social Psychiatry Research Unit at Maudsley Hospital in London. Their theses in this volume are straightforward and optimistic: "in a high proportion of cases [high grade] defectives can be largely self-supporting and may cease to be cases for hospitalization;" also, under suitable conditions, imbeciles can be taught to do "useful and constructive work."

As a basis for these assertions, O'Connor and Tizard summarize the research done by the Unit over the past half-dozen years, as well as related studies performed by others in England and America. Their own work—emanating from both laboratory and 'real-life' situations—attacks highly practical problems concerned with preparing the high-grade defective for a self-sufficient life and promoting productivity in the lower-grade defective. It is distressing that the methodological elegance characterizing much of the laboratory research is noticeably lacking in the 'real-life' studies, but, to their credit, the authors appear to be aware of these shortcomings.

Their conclusions and recommendations, succinctly summarized throughout the book, appear to be neither incautious nor out of line with the data. Their general pessimism expressed over the utility of psychometric devices for predicting occupational and community adjustment should cause interesting reverberations in America. In assessing the authors' conclusions, the American psychologist will constantly have to remind himself that the English use of 'high-grade defective' ('feeble-minded') includes individuals with IQs well above 70. The contention that the 'high-grade defective's' handicap is social-emotional and not cognitive may not apply to many American 'morons.'

The book presents a refreshing point of view and some research ideas which the American worker interested in this area had better examine closely.

Though psychologists working in mental deficiency have not been particularly productive as a group, individual exceptions of course exist. J. E. Wallin is easily the most notable of these. *Mental Deficiency*, his latest book, is subtitled *In Relation to Problems of Genesis, Social and Occupational Consequences, Utilization, Control and Prevention*. It is a highly specialized volume which, for a number of reasons, is a chore to read.

Wallin presents a rather exhaustive enumeration of results of important research on the topics indicated in the subtitle, together with numerous summarizing and evaluating discussions, but his accounts of research results are often so literally enumerative that many of the passages will fail to hold most readers' interest. The readability of the book is not enhanced by the extreme crowding of the print or the average of 65 footnotes per chapter.

It is doubtful if the typical student would enjoy using this book as a text.

For the specialist interested in genetic, eugenic, and sociological problems associated with mental deficiency, however, it would provide a highly useful, compact source of bibliographic material and a scholarly summary of the current knowledge in these areas.

Each of the three books reviewed deserves a place in the library of the psychologist who is involved in problems of mental deficiency. Many unanswered questions are posed in these volumes. It will be interesting to see if the coming decade, with its promise of heightened research activity, produces any of the answers.

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Fortunately [psycho]analysis is not the only way to resolve inner conflicts. Life itself still remains a very effective therapist.

—KAREN HORNEY



The Clinical Psychologist as Navigator

William A. Hunt

The Clinical Psychologist. Springfield, Ill.: Charles C Thomas, 1956. Pp. xi + 206. \$5.50.

Reviewed by GEORGE A. KELLY

Dr. Kelly, the author of The Psychology of Personal Constructs, recently reviewed in CP, is Professor of Psychology at Ohio State University, President of the Clinical Division of the American Psychological Association, formerly a president of the American Board of Examiners in Clinical Psychology, and through and through a clinical psychologist.

THIS is more than a description of psychology's lusty subdiscipline by a well-informed clinician; it is an amplified statement of the credo of one of psychology's most respected scholars. Hunt believes that psychology has been scientific only so far as it has anchored its thinking in physiological concepts, and that the ultimate language for coming to terms with human behavior will be a physiological language. In spite of the trends of recent years, he believes this to be no less true of clinical psychology than it is of the psychology of learning, or of experimental psychology, or of physiological psychology.

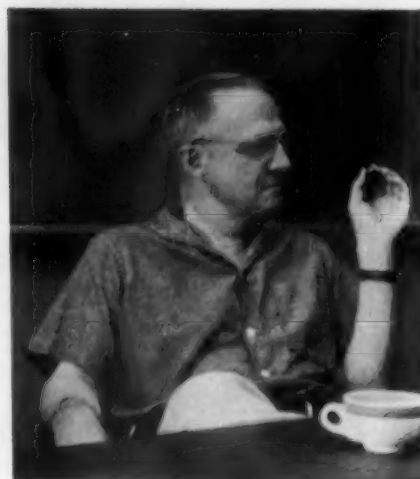
One is reminded of the early Christian ecclesiastics who, after dedicating their lives to a spiritual kingdom and missing no opportunity to denounce the flesh, were still unable to conclude the Apostles' Creed without affirming an essential belief in the resurrection of the body. While it may not be quite appropriate to speak of the author's life-long devotion to psychology in ecclesiastical terms, it is true that, in spite of his distinguished record, he pins his ultimate faith on the kind of stuff physiologists see through their glasses rather than on what psychologists see through theirs. He sees, of course, no inconsistency in this choice.

The author is the chairman of the department of psychology at North-

western University. His research contribution to experimental psychology over the past three decades has been equaled by few others. He is a long-time member of psychology's most exclusive club, the Society of Experimental Psychologists. But he is also a former president of the clinical division of the American Psychological Association and he identifies himself solidly with clinical psychology. For a number of years he has served the Administrator of Veterans Affairs at the policy-forming level as a member of the Special Medical Advisory Group, a body specifically established by law. What many of his colleagues who are familiar with his record of research and public service may not know is that his career has embraced formal training in clinical procedures, including early schooling in psychotherapy. Not many of the clinical psychologists of his generation were so systematically trained for practical work, nor can many of them lay so strong a claim to the right to speak for clinical psychology.

IN THIS book Hunt has indeed spoken for clinical psychology. His opportunity came when he was invited to give the Salmon Lectures during the autumn of 1954. The three discourses were obviously prepared for medical listeners and were delivered before a predominantly nonpsychological audience in New York. In their printed form they are considerably expanded beyond their original texts.

To lay the groundwork for understanding the clinical psychologist Hunt points to a fundamental difference in the ways psychology and medicine have dealt with the problem of pure vs.



WILLIAM A. HUNT

applied science. On its part, medicine has generally conceded itself to be an applied science and has looked to the disciplines of biology and physiology for basic information. Psychiatry has separated itself even further from basic research.

Psychology, on the other hand, began as a pure science. But because it was a science of human behavior it had to pay attention to human affairs. American psychology, especially, has been a functional psychology and, because it was so, it has openly functioned everywhere. Thus it happened that psychology's own subject-matter and American psychology's theoretical position forced the new discipline to come to grips with all its practical implications. In this way clinical psychology—American clinical psychology—developed as an essential elaboration of psychology as a whole. Clinical psychology's relation to pure science is thus intrinsic, rather than extrinsic as in the case of medicine—or, more especially, as in the case of psychiatry.

Psychodiagnostic procedures today owe what precision and validity they have primarily to the clinical psychologist. The contribution rests upon his use of the research methodology in which every clinical psychologist is trained and the sound application of the scientific method with which every student in clinical psychology is required to be familiar. Nor does the clinical psychologist's competency in diagnosis stop here. It extends to his skilled use of the interview, the evaluation of case-history

materials, and even to the integration of medical findings with other relevant data. He is no mere technician, and the author makes this point clear.

The clinical psychologist also functions in the field of psychotherapy. Here the procedures are obviously rooted in his own discipline. But as psychiatry has departed further and further from medicine proper and has placed less and less reliance on the specific techniques and training given in medical school, psychology has been drawn more and more into jurisdictional controversies with it.

As long as psychiatry was medically oriented toward illness, it seemed proper for psychiatrists to accept medical supervision when dealing with the ill person. But now that so much of psychiatry has abandoned medicine, has so often asserted that illness is anything and everything, and has claimed exclusive jurisdiction over all interviews in which there is "subsequent benefit to the interviewee," trouble is afoot.

THE AUTHOR returns to the problem of interdisciplinary relations in his third lecture as he discusses the future of clinical psychology. He points out that contemporary psychiatry at times is dangerously close to mysticism. It is this fact that makes it difficult both for medicine and clinical psychology to make common cause with psychiatry. This mysticism, moreover, when it takes the form of ultimate and omniscient authority over the patient under the guise of medical responsibility, troubles the author.

Clinical psychology, on the other hand, "is full of probabilities rather than authoritative absolutes. It offers knowledge, with statistical evaluation attached, for the client's selection and use." Hunt continues by saying that psychology's responsibility, in contrast to the psychiatrist's "medical responsibility," is "for the authenticity of its knowledge, and for the correctness of its translation into terms of the client's need." And he insists the responsibility for the use of knowledge remains with the client. It is on this dimension that Hunt primarily differentiates the role of clinical psychology.

Hunt's second lecture on "how the clinical psychologist came to be" is a masterful discourse on the streams of thought which have enriched contemporary clinical psychology. He gives unreserved credit to Freud as a great human naturalist, but declines to call him a scientist in any sophisticated sense of the word. He points out that Watson, by lifting the siege of instinctualism, heralded an era in which "destiny becomes not a fate to be accepted, but a goal to be created." He observes that Gestalt psychology did not accept its configurational properties "as irreducible emergents, outside the realm of science," but showed them "to be logical, orderly phenomena reducible to an observable and measurable set of relationships." Thus the author defends the status and traditions of clinical psychology as a science, a science that is soundly logical, vigorously hopeful, and, above all, physiologically palpable.

The Panum Effect

Johannes Linschoten

Strukturanalyse der binokularen Tiefenwahrnehmung.

Pp. xvi + 573. Abbildungen. Pp. 58. Groningen, Djakarta: J. B. Wolters, 1956.

Reviewed by ERIC G. HEINEMANN

who, after teaching at Cornell and Harvard, is now Assistant Professor of Psychology at Vassar College. All along he has been especially interested in visual perception, and his research has dealt with problems of visual space perception and interaction effects within the visual system.

THIS is a doctoral dissertation submitted to the University of Utrecht in 1956. The core of the book is a report of the author's research on binocular depth perception and a presentation of his own theory of depth perception. Prospective readers should be warned that the core is not easy to reach, for the author has embedded it in a rambling discussion of a great variety of topics. His discussion includes a valuable analysis of the relevant literature but also a good deal of very detailed consideration of hoary methodological issues and other matters only indirectly related to the central topic.

Most of the experimental work is organized about two phenomena that Linschoten believes to be incompatible with the classical theory of binocular depth perception developed by Hering and his students. The first is the *Panum effect*. This term refers to the fact that under certain conditions a binocular depth effect may occur in the absence of 'disparity' as defined by Hering. The second phenomenon is the perception of two objects as a result of stimulating corresponding points. Linschoten contributes several new demonstrations of these phenomena. Most impressive is an ingenious new pattern he designed to demonstrate that stimulation of corresponding points can result in diplopia. Linschoten's demonstration appears to escape the criticisms that have been made of earlier demonstrations of this effect by Wheatstone and by Helmholtz.

While Linschoten has stirred up new trouble for Hering's theory, it is not at

*Nature and Nature's Laws lay hid in Night;
God said, "Let Newton be," and all was Light."*

—ALEXANDER POPE

*It did not last: the Devil howling, "Ho,
Let Einstein be," restored the status quo.*

—SIR JOHN SQUIRE



all clear that the substitute he offers is any more satisfactory. The theory he proposes is a 'field theory' in the spirit of Brown and Voth. It is meant to be purely "psychological," i.e., none of its terms refer to anatomical or physiological facts. The key construct is the "binocular field," a reference system in which the images received by the two retinas are superimposed. There is assumed to be a mutual attraction between those elements in the binocular field that do not originate in the same eye. This results in displacement of figures in the binocular field and the author makes an attempt to relate the geometry of the 'rearranged' binocular field to seen depth.

Linschoten states his theory in qualitative terms and for the most part it differs from the classical theory only in terminology. Hering's *uncrossed disparity* becomes *heteronymous attraction*, *crossed disparity* becomes *homonymous attraction*, and so on. Not surprisingly, the two theories account for many of the facts of depth perception with equal ease. Hering's formulation is the more simple and elegant. Linschoten's case for the superiority of his own theory rests principally on its alleged ability to account for the Panum effect, and the fact that stimulation of corresponding points may give double images. His case turns out to be feeble indeed, for it takes two *ad hoc* hypotheses to deal with these phenomena, one for each of the phenomena to be explained. The analysis that is given of the double-image effect depends on arbitrary and somewhat implausible assumptions concerning the relative strengths of the various attractive forces involved. The critical aspect of the Panum effect that Linschoten sets out to explain is the fact that the fixated, fused part of the Panum pattern lies in the plane of fixation and shows no change in visual direction. This fact can be derived from his theory only after it has been expressed in the terms of the theory and the resulting statement has been tacked on as an auxiliary hypothesis.

Though the main argument of the book contributes little to our understanding of binocular depth perception, the incidental discussions of the relevant literature are often very enlightening and some new research findings are reported. Experts in this area should read the volume; there is no reason for recommending it to anyone else.

Psychopathology Without Benefit of Freud

Washington University. Committee on Publications

Theory and Treatment of the Psychoses: Some Newer Aspects. (Papers presented at the Dedication of the Renard Hospital, St. Louis, October 1955.) St. Louis: Washington University Studies, 1956. Pp. v + 119.

Reviewed by JOSEPH ZUBIN

Dr. Zubin is Professor of Psychology at Columbia University and Principal Research Scientist in Biometrics in the New York State Department of Mental Hygiene. He has spent the major portion of the last quarter-century in developing and applying quantitative techniques in psychopathology. He is a past-president of the American Psychopathological Association, and finds himself involved in many ways with psychology, psychopathology, nervous and mental diseases, mental deficiency, statistics, biometrics, and psychometrics.

THE general scope and format of the present symposium are reminiscent of a similar symposium entitled, *Psychiatric Research*, held in 1947 at the occasion of the dedication of the laboratory for biochemical research at McLean Hospital. The contents of the two monographs, however, are quite different. The present symposium is far less physiologically, much more behaviorally oriented. Where the earlier book had chapters dealing with the blood-brain barrier by Jordi Folch and with neurophysiology by Gasser, the current volume presents Skinner on *What is Psychotic Behavior?* and Redlich on *Some Sociological Aspects of the Psychoses*. The only common link between the two publications is Stanley Cobb who tackles the task of integrating the various disciplines concerned with mental disease, just as he did in his earlier chapter. Strecker finds a replacement in Whitehorn, and Penfield's chapter has no parallel in the present book.

Alan Gregg's review of psychiatry in the general hospital holds up the example set by the Belgian town of Gheel whose citizens, since the thirteenth century, have made it a practice to billet mental

patients in their homes. His description of Gheel's attitude toward psychiatric disease culminates with the observation: "The impression I received on a visit there drew additional flavor when I learned that scarcely any native of that town but had been tended as a child by one or another of the insane in Gheel." This well illustrates the point that present-day psychiatry is more sensitive to atmosphere, sympathy, tolerance, and quiet tenacity and faith than any other branch of health and healing. Rather puzzling is Gregg's repeated reference to the alleged therapeutic value inherent in "the blessed chance of being found to be a sufferer from some predominantly bodily disorder whose mental or emotional accompanying sign or symptom was wrongly assumed to be primarily or exclusively psychiatric." This gratuitous distinction between the mind and the body seems somewhat out of place in an otherwise very interesting and informative article.

The concept of milieu therapy is ably presented by one of its chief proponents, A. H. Stanton. Providing a suitable atmosphere in the hospital and removing unnecessary administrative stereotypy so as to alleviate confusion and suffering in the patient, are, of course, highly desirable. Just how much of the variance in therapeutic outcome these factors will account for remains to be seen. At the present time, the interest in milieu therapy seems more likely to throw light on the mechanisms of interpersonal relations than on psychopathology.

In a very practical chapter dealing with strategy and tactics in psychiatric therapy, Whitehorn points out the need for uncovering the assets of the patient

as well as his liabilities. He argues against the conclusion that when mentally ill people respond to psychotherapy, their disease was of psychogenic origin. I would add that a drug's efficacy against an illness is also no proof that the illness was basically organic. That drugs as well as words may alleviate anxiety or other forms of mental deviation is evidence for an underlying mechanism common to both. What this mechanism may be is, of course, still unknown, but it seems probable that it involves some neuro-humoral balance within the organism that can be influenced either by words or by drugs.

REDLICH underlines the difficulties of epidemiological studies of health and disease in the general population. At the present time most studies are limited to the incidence of hospitalized mental disease. Studies which go beyond this criterion seem to bog down in the morass of definitions telling what is meant by mental illness. As a result, we have varying estimates of the incidence of mental illness, ranging from 10 to 87 per cent of the general population. One solution to this impasse is to turn the problem around and ask the question, "How much psychopathology is the normal population entitled to?" A 'Kinsey survey' of everyday psychopathology—anxiety periods, depressive moods, blue funk episodes, and the like—might provide evidence for the accepted range of deviation in the general population for some basal period such as a month. Such an approach to the problem might serve to delimit more closely the borderline between what might be called the 'frank neuroses and psychoses' and the acceptable deviations of everyday behavior.

Redlich concludes that the psychoses are relatively less culture-determined than the neuroses. One wonders whether neuroses, too, are less dependent on culture than a first glance suggests. Perhaps the effect of culture is to elicit latent neurotic tendencies. If a culture makes no great demands, the absence of a particular capacity or ability in an individual or their presence in low degree may not become apparent. The contention derived from the Yale study, that both prevalence and incidence of mental disorder are higher in the lower socioeco-

nomic groups, seems to this reviewer to be extremely doubtful. For one thing, incidence is confused with prevalence in the discussion. Then, too, it seems quite likely that the schizophrenics in the upper socioeconomic levels are incompletely represented, since the bulk of such individuals do not come to the attention of state hospital authorities and are even outside the experience of the usual private practitioner. The tendency to apply psychotherapy to the upper classes and to give organic therapy to the lower classes is, of course, well known and should hardly be regarded with any great surprise, since it reflects the ability of these groups to pay for the therapy extended them.

Skinner in his chapter, *What is Psychotic Behavior?*, stresses the lawfulness of psychotic behavior and insists that if we confine attention to the observable activity of the organism (moving about, standing still, seizing objects, pushing and pulling, making sounds, gesturing, etc.), we can develop suitable instruments with which to amplify small details of the subject-matter. Skinner's 'empty organism' approach is too well known to warrant any further discussion. It is interesting, however, to note that this preoccupation with the empty organism has begun to throw light on things which apparently must go on under the skin of the organism, but which can not be detected in any other way. For example, the cumulative curves of key-pecking by pigeons (for which Skinner is noted) have been found to yield evidence of the presence of quantities of drugs too

minute for the chemist to find by his own techniques.

It is surprising, however, that, although Skinner considers hereditary variables in his general conceptual design, he leaves no room in his system for the possibility that some of the diseases are genetically determined. One of the variables with which Skinner, of course, refuses to deal is the affect which accompanies the behavior of the patient. Despite his disinterest in such factors, the reviewer and his associates have been able to adapt his own verbal conditioning techniques to determine the presence or absence of affect through a focused interview. By reinforcing the affective utterances of a patient, the number of such utterances increases beyond the level reached during an operant period. Thus the man who objected most strongly to penetrating beneath the skin of the organism has provided techniques by which we can explore the internal milieu to better advantage.

In the last chapter, George Saslow reviews the major themes of this symposium and points out that nearly all of the contributors have either explicitly or implicitly addressed themselves to the question of the control of behavior, through the use of drugs or of other devices. The ethical problem of the desirability of instituting control of human behavior raises philosophical questions which can not be entered into here; but, as long as there are rebels to kick over the traces, there is little danger that human behavior will be indefinitely controlled by anyone.

The Pride of Minorities

Joseph B. Gittler (Ed.)

Understanding Minority Groups. New York: John Wiley & Sons, 1956. Pp. xii + 139. \$3.25.

Reviewed by JOHN HARDING

Dr. Harding, who is now Associate Professor of Child Development and Family Relationships at Cornell University, was for five years a research associate and later assistant director at the Commission on Community Interrelations of the American Jewish Congress, an organization that has always been concerned with the internal

forces that hold a group together as well as the external pressures that shape it.

THIS little volume contains the papers presented in a symposium on American minority groups at the University of Rochester in the fall of 1955. Like most books in this area, it appears to have three major objectives: (1) to promote

more favorable attitudes toward the minority groups discussed, (2) to present an interesting selection of factual information about each group, and (3) to contribute to scientific understanding of group identification, intergroup hostility, and other aspects of intragroup and intergroup relations.

Insofar as this reviewer can judge, the first two objectives are well realized. The style is popular, occasionally poetic. Each author writes with deep sympathy for the group he is discussing. The information presented is in general well selected and full of human interest. Only the chapter on Japanese-Americans is dull; in this one paper the author makes little attempt to convey directly the values and aspirations of the group she describes. Instead the paper bogs down in a mass of demographic detail.

THE objective of scientific understanding is not, however, so well served. The basic difficulty is with the editor's concept of a minority group. In his preface he states: "Minority groups are those groups whose members experience a wide range of discriminatory treatment and frequently are relegated to positions relatively low in the status structure of our social system." This criterion determined the groups selected for discussion in the symposium: Catholics, Jews, Indians, Negroes, Japanese-Americans, and Puerto Ricans. They were chosen because the editor felt they were currently targets of discrimination—unlike American Protestants, Scandinavians, or Irish.

This definition of a minority group has been common in American sociological writing. It is useful for the objective of promoting favorable intergroup attitudes, because it focuses attention on groups which are being unjustly treated. Unfortunately it is more of a hindrance than a help to scientific understanding.

The first major difficulty with the definition is that it makes unnecessarily subjective the decision as to whether a particular group is or is not a minority group. The paper on American Catholics illustrates this problem neatly. The editor of the volume believes that Catholics are objects of discrimination; this belief constitutes their claim to being considered a minority group and to their

being discussed in the symposium. The belief is not, however, shared by the author of the paper, a distinguished Catholic priest.

Father La Farge defines Catholicism as "a vision of salvation and liberation, an *ultimate* liberation and salvation, imperishable heritage of the eternal possession of God." The basic problem for American Catholics is that of finding institutional forms adequate to the grandeur of this vision. This is difficult, but "one of the most striking aspects of Catholicism as it is today in the United States is the extent to which it is at home, as it were, in the United States." It is clear that for Father La Farge the *least* important thing about American Catholics is that they have been, on occasion, objects of discrimination.

But there are much more serious problems with Professor Gittler's definition of a minority group. It seems extremely arbitrary to exclude a group from a field of scientific study when it ceases to be an object of discrimination. La Farge's paper indicates that the Catholic group has maintained its identity and essential characteristics throughout a long period as a 'minority group' as well as in a more recent period as a 'non-minority group.'

One might try to counter the charge of arbitrariness by arguing that discrimination is a necessary condition for the maintenance of group identity, so that when a group ceases to be an object of discrimination it begins to disintegrate. The 'ex-minority group' may not disappear immediately, but it will not last long as a potential object of scientific study. Professor Gittler makes exactly this argument: "Initially we may find a common tradition binding a group together, but in most cases where there is little majority group prejudice, the minority group gradually tends to merge into the majority group."

This generalization is clearly false if applied to religious groups (including the Jews as a quasi-religious group). It is probably false if applied to American Indians, or to any ethnic group whose culture has distinctive values which are sharply at variance with dominant themes in American society. The most serious difficulty with the whole minority group concept is that it insidiously leads Professor Gittler into an error not made

by any of the other contributors to this volume—a systematic overemphasis on discrimination among the various forces contributing to group identity, and a systematic underemphasis on the positive satisfactions in group membership.

Plume de Noms

Jean Delay

Aspects de la psychiatrie moderne. Paris: Presses Universitaires de France, 1956. Pp. 115. 440 fr.

Reviewed by BRENDAN A. MAHER

who recently reviewed for *P* Leonard Schwartz's book about Pierre Janet. He is at Northwestern University and is interested in penological and physiological psychology, personality theory, and in helping American psychologists to understand European psychology. He is a gift from Great Britain to America.

LECTURES which make good listening do not necessarily make good reading. Often they achieve publication as a kind of souvenir of the occasion of their delivery rather than as a result of a legitimate claim to enrich the literature. Ordinarily their appearance is confined to an appropriate journal. When, however, the written lecture is tendered to the book-reading audience, the author assumes the onus of providing additional justification for its publication. New data, a new theory, or a better way of organizing current knowledge require no further warrant, while the textbook may provide none of these and still be of didactic value. If the reader accepts these as criteria for publication, he will find that Professor Delay offers a disappointing book.

Strictly speaking, this is not a book but a collection of three lectures, originally delivered orally and now published together between one set of covers. While the author's treatment of each topic is similar, the differences in content necessitate a separate discussion of each.

The first, *Discours aux Étudiants*, was delivered by the author in 1947 when he assumed the chair of clinical psychiatry at the Faculty of Medicine in Paris. It is

the traditional *leçon d'ouverture* of the new incumbent, in which he is expected to give an account of his training and to define the goal of his own teaching. A task of this nature, carried out under limitations of time, invites a superficial treatment. Unfortunately, this superficiality has remained uncorrected in the printed version and a potentially valuable account of the recent history of French psychiatry remains instead a discursive directory of the author's professional acquaintances. Janet and Piéron together are presented in two paragraphs. Psychoanalysis is treated in two pages, while Pavlov and the "reflexologists" are awarded rather less than a page. Finally, Delay defines his own position with reference to the parable of the six blind men describing an elephant, namely, that in a kind of 'psycho-somatic' eclecticism lies the road to some final truth. This may be a suitable ending to a hortatory address to medical students, but it is unlikely to arouse interest in the sophisticated reader.

THE second essay, the title of which is given to the book, is a reprint of the presidential opening address delivered by the author to the International Congress of Psychiatry in 1950. It is thirty pages long and contains passing references to ninety names, ranging in time from Pinel to Ey, in topic from Hughlings Jackson to Horney, and in location from Masserman to Cerletti.

Névrose et Création, the final paper, is a brief essay given before the Congress of French-speaking Neurologists and Psychiatrists in 1954. Delay is concerned with the possible relationships between neurosis and literary creativity. Steckel's formulations are presented, the existentialists are touched upon, and some fleeting attention paid to Goethe and Gide. Delay concludes that maladjustment is favorable to creativity, and is itself cured by it.

It is difficult for the reviewer to recommend this book. The content is platitudinous, rambling, and superficial. It gives nothing by way of theory, data, hypotheses, or organization—and will be difficult to use as a textbook. The past and present of French psychiatry deserves better than this.

How Do I Love Thee? Let Me Count the Ways

Vernon W. Grant

The Psychology of Sexual Emotion: The Basis of Selective Attraction. New York: Longmans, Green, 1957. Pp. viii + 270. \$4.75.

Reviewed by ALBERT ELLIS

Dr. Ellis is a psychotherapist and marriage counselor in New York City. He is a clinical psychologist with institutional experience in the past. He has published many papers on sex, love and marriage and at least three books: The Folklore of Sex, The American Sexual Tragedy, and recently The Psychology of Sex Offenders. The title for the review was donated by Elizabeth Barrett Browning.

ONE would think, judging by the popularity of sexual love in our culture, that serious books on the subject of the amorous emotion would be plentiful. They are not. Although innumerable volumes on human sexuality appear every year, few scholarly considerations of love flow from the presses. Much of the best writings on the subject, in fact, were done during the late nineteenth or early twentieth century, sans benefit of recent psychological, sociological, and anthropological findings.

Vernon Grant's book fills a real need for an up-to-date, well-ordered, comprehensive analysis of human amorousness. Dr. Grant, head of the Department of Psychology at Hawthornden State Hospital in Ohio, is an experienced clinical psychologist who has immersed himself to a remarkable degree in the existing literature on sexuo-amativeness. From his clinical judgment and his scholarship he painstakingly and clearheadedly searches for solutions to the age-long riddle of the causes of sexual emotion; and he comes up, I believe, with some valuable answers.

After considering the question of love from almost all possible sides, Dr. Grant concludes that (a) there are two basic sex motives, the genital and the amorous, which are unlike in quality, duration, and expression; (b) that the amorous emotion is an urge to possess another human in a

complete, intimate, and lasting sense, and to know this other sensually rather than genitally; (c) that the amorous motive arises from responses of a distinctive erotic-esthetic kind which are typical of persons of the opposite sex; and (d) that sex-esthetic responsiveness is highly individualized and is a product of (1) the standards of a given culture, (2) differences, perhaps constitutional, in esthetic organization, and (3) accidents of experience.

One may quibble with some of Dr. Grant's definitions, categorizations, or conclusions; nonetheless they command real respect. One may feel, as does this reviewer, that the author at times beautifully differentiates between genital desire and amorousness, but at other times does not quite succeed in emphasizing their interrelationship. Viewed from one angle, man has several differentiable processes of behavior—e.g., his sensorimotor, emotional, and cognitive processes—and yet these all significantly interweave and are in some ways the same thing.

The sexual emotion, like all emotional states, would seem to have at least four main sources: (a) direct biophysical stimulation of certain regions of the brain and autonomic nervous system; (b) excitation of the sensorimotor processes; (c) stimulation of the thinking processes; and (d) excitation of related emotional processes.

The difficulty is, however, that once we have neatly separated the sources of sexual love in this manner, we must immediately add that they are not *really* so disparate, for they all overlap and interact significantly. Thus, a male becomes amorously attached to a female because he perceives her as being esthetically satisfying or beautiful; but he also perceives her as beautiful because he has sex desires, because he remembers what

he has learned about the concepts of beauty prevalent in his culture, and because he has an emotional need to win the approval of others by having a beautiful mate.

The only all-around solution to the problem of love, therefore, would seem to be to conceive sexual emotion as different from and related to genitality, as a product of sensory-esthetic and conative and cognitive processes. Dr. Grant apparently conceives them in this way, but at times his language and organiza-

tion do not make his conceptions entirely clear.

Let us, however, not cavil. Let us, instead, be duly grateful for the fact that, by dispassionately and incisively examining the major disparate and interwoven elements that go to make up the sexuo-amative complex, *The Psychology of Sexual Emotion* serves as an admirable integrative approach to this surprisingly little investigated area of human behavior. Almost any psychologist would do well to own and study this book.

which must be met for optimal well-being." Since the human species, and most other species, are subject to heterogeneous genetic influences, each person has distinctive nutritional needs. If these are not met, as they often are not—the argument runs—the individual may be unusually susceptible to certain infectious diseases, to physiological malfunctions, and even to mental disorders. On the other hand, research often can discover the unique nutritional requirements of those who are troubled by disorders, and by meeting these requirements the disorders may be eliminated or alleviated.

Translating this general approach into a strategy for research, Williams espouses a general formula for progress in medical, dental, and psychiatric research (and by implication, in some psychological research). First, he says, "Select a disease the etiology of which is obscure." Then, secondly, "Explore the known metabolic peculiarities, and look for new ones, which may be associated with the disease or susceptibility to it." Finally, "Seek to correct the metabolic failures by applying the genetotrophic principle in whatever manner seems most appropriate for the disease in question." He cites several examples of how this strategy has won victories, but the one most familiar to psychologists is his demonstration that in some cases of alcoholism the trouble is that the person's nutritional requirements for B vitamins have not been met.

In this reviewer's opinion, this little book will have a salutary impact on the thinking of all scientists concerned with ferreting out the causes of organic and mental disorders, and it is well worth the perusal of psychologists who are trying to make some headway in understanding why people and animals vary in the adequacy of their adjustments to the environment.



Psychology has three defense mechanisms which frequently serve to hide the absence of ideas, namely, correlations and probable errors, unnecessary instrumentation, and verbiage, all of which help to make the obvious seem profound and scientific.

—L. L. THURSTONE



Genetotrophy Attacks Disease

Roger J. Williams

Biochemical Individuality: The Basis for the Genetotrophic Concept. New York: John Wiley & Sons, 1956. Pp. xiii + 214. \$5.75.

Reviewed by CLIFFORD T. MORGAN

Dr. Morgan has been created a Fellow in Psychology by the Johns Hopkins University so that he can spend his time in writing and also in helping others to write by being the Consulting Editor for McGraw-Hill's Series in Psychology. Mostly he is writing, and he has a five-year program laid out which sounds fine to CP. Everybody knows him as the author of Physiological Psychology in 1943, the book that took on Eliot Stellar as a joint author in 1950. There's a third edition coming, perhaps by 1959—that and lots of other things.

FROM one of the country's distinguished biochemists comes another fact-laden, thought-provoking book—one that combines the author's professional interests in biochemistry with his more avocational concern with individuality expressed in his *The Human Frontier* and *Free and Unequal*. With an enormous amount of evidence, drawn from many scientific quarters and compiled with the help of investigators in several fields, he argues the biological uniqueness of every individual, animal or human, and then goes on to develop the implications of the concept of individuality for biological sciences, medical and dental research, and psychiatry.

After capsuling the mounting evidence for the genetic control of bodily structure and function, Williams devotes nearly half the book to data on the variability

found in different biological domains. First he describes striking variations in the size and shape of such organs as the brain, liver, and thyroid gland; then he moves on to document similar individual differences in enzymic patterns, endocrine activities, excretion patterns, pharmacological reactions, and nutritional requirements. His addiction to the range as a measure of variability is somewhat disconcerting to the reader who knows the limitations of this measure, but his evidence is nonetheless impressive and enlightening. For, though psychologists have long recognized individual differences in behavior, they have tended, along with their biological colleagues, to stress the uniformities, rather than the differences, in bodily structure and function. This book makes it clear that such differences are just as great, if not greater, in the biological sphere as they are in behavior.

ALTHOUGH some of William's facts will be of special value to psychologists whose research concerns the brain, endocrine glands, or nutrition, his development of the *genetotrophic approach*, as he calls it, will be of greatest general interest. This approach is rooted in the premise that "Every individual organism that has a distinctive genetic background has distinctive nutritional needs

CP SPEAKS . . .

IN A sense CP has an older cousin, the *Annual Review of Psychology*, which, seven years CP's senior, celebrates this year its eighth birthday. ARP covers the articles that make up contemporary psychology, whereas CP covers the books. Contratulations, Cousin! You are doing well, and you look good to CP.

Last year CP tried to review the ARP, but it failed to find the omniscient sage who was ready to assess the assessments of 2067 articles. So CP asked 16 experts, each one to write 150 evaluative words about one of the 16 chapters; yet CP felt later that it had been much less than brilliant when it had this brain storm.

The average ARP expert abstracts 130 articles in 10,000 words, being, on advice of his editors, as critical and evaluative as he can be. Then CP's expert tries to boil the ARP's expert down to 150 words, to 1.5% or about one word for each of the original 130 articles. Such a condensation could be made if the original corpus had a unitary essence which the abstracting critic perceived and extracted for his readers, and if then CP's expert could distill the still more concentrated quintessence from the ARP man's essence. (On this technique, see CP, 1956, 1, 252, 303.) This is, however, not the way nature works. The unities exist for the clever mind to perceive, but their constituents are not grouped together by calendar years or in accordance with the formal fields of library classification. The great abstractions of science come to him who can see relationships in what was hitherto unrelated, him who can see how new knowledge now glows with significance when catalyzed by last century's old dull facts.

So CP's analyst says for it to stop trying to do the impossible and to face reality. CP will. It is not going to try to review the ARP. Yet it likes its sober fact-minded cousin, braced with citations with never a quip for glamour, and CP will talk about ARP whenever it gets a chance—as now.

Want to know what ARP has been up to these eight years? Here it is in a table.

Topics	Chaps.	Authors
1. Vision	8	9
2. Hearing	7	7
3. Taste, smell, somesthesia	8	8
4. Learning	8	9
5. Problem solving, symbolic processes (1950, 1955)	2	3
6. Motivation (1952 only)	1	1
7. Individual differences	8	9
8. Developmental psychology (child, growth). Gerontology, at first included (1950), later separate (1951, 1956)	10	13
9. Educational psychology	8	9
10. Personality	8	8
11. Social psychology, group processes	8	8
12. Industrial psychology	8	10
13. Abnormal psychology, behavior deviations. Also Special Disabilities separately (1953, 1957)	10	13
14. Clinical psychology, psychodiagnostics and psychotherapy (these two separate in 1950-1953); Assessment (separate in 1954, 1955, 1957)	15	16
15. Counseling, diagnostics, therapy (these two separate in 1950, 1951)	10	11
16. Statistical methods, theory, research design	8	8
17. Comparative (animal) and physiological psychology (separate in 1953 and later)	13	15
18. Communication (1954 only)	1	1
19. Theoretical psychology (1953 only)	1	1
	142	159

Actually there has not been much change in the eight years—as the Editors themselves note, asking for suggestions right now as they reconsider ARP's proper philosophy for 1960 *ant seq.* The standard topics keep on. Sensation does not disappear; it just gets supplemented by other topics. It was an accident that Hearing missed out in 1956. There is not much on what used to be called 'the higher mental processes' and only one chapter (1952) for Motivation. Why? Probably because motivation gets picked up by personality and by social, abnormal, clinical, and counseling psychology. The Editors had better check this point, though. Child psychology was at first Developmental and included Gerontology, which later got separate treatment as its literature increased. ARP responds to the Zeitgeist. Behavior Deviations have become Abnormal Psychology again: behavior, having won out in the new protocol, no longer has to insist upon its special nature. It's like a feminist so successful as to be willing to be included in mankind again. In both Clinical and Counseling Psychology the distinction between diagnostics and therapeutics makes difficulty, but ultimately the two have to merge. In 1950 it was still possible to consider Comparative and Physiological Psychology together, presumably by way of the common term *animal*: one considers animals and the other uses them, yet you may have to use them when you consider them. Anyhow this fusion lasted only three years.

The ARP gives the impression of flexibility in a relatively stable world. It keeps pretty close to 18 chapters (16, 17, and 19 chapters once each), but Motivation, Communication, and Theoretical Psychology walk on in one act and then disappear, at least temporarily.

There are altogether in the eight years 142 chapters and 159 authors, for 16 chapters have multiple authors. The Editors have made an especial effort to become international, partly to bring foreign psychology the better to American eyes, but also to promote an awareness of scientific psychology abroad and thus increase international scientific unity. There are 12 authors not from the United States—one each from Switzerland, Belgium and Canada, and the rest from Great Britain.

An effort was made by *ARP* to get the citations complete including the full title of the article cited. The Editors seem never to have been wholly successful. It is a big job and the techniques for the complete subjugation of authors remain still to be perfected. On the whole the *ARP* probably gains from picking authors by their brains instead of by their compulsiveness, but it takes compulsion to make a good bibliography or index.

That's all, Vale, *ARP*! When you finally get a joke under your belt, please send *CP* a marked copy.

WHAT is a book for? Communication. Mass communication. The invention of printing, along with the invention of gunpowder, the fall of Constantinople, and the discovery of America, had a great deal to do with our modern civilization's being what it is. The invention of language was perhaps the most important event in the history of civilization, and presumably the invention of written language comes next, but still culture was bound to advance slowly until this new technic of mass communication became available.

On the other hand, "the making of many books" is exponential and civilization thus has in it the seeds of its own frustration. UNESCO thinks that there must be about 5 billion books published per annum, which is 2 books per capita or 4 books per capita that can read. (Did you remember to read your four books last year? What were they?) So the libraries which increase 32-fold every century (a thousand-fold in a bicentennium) are not merely running out of space; they are running out of the capacity to grow fast enough; and they are looking for some way of avoiding being overwhelmed by this mass of volumes that multiply like locusts.

One solution is thought to be the microcard, 40 or even 60 pages reproduced photographically on a 3 x 5-in. card. These cards are not meant for the naked eye. They have to be read with a viewer; but then we have to use some kind of machine to print a book and might as well go the whole way and employ a machine for reading it.

In this issue *CP* publishes a review of the first volume of *Primary Records in*

Culture and Personality, edited by Bert Kaplan and reviewed by Alex Inkeles. This modern 'book' consists of 131 microcards, a little fewer than 40 pages reproduce 1 per card, about 3800 pages in all. That comes to about one million words, which is about 3000 words per cc., since this 'book' measures 360 cc., a cup and a half of culture and personality. Such is the library's answer to prayer. Get your viewer and let civilization proceed.

Now these published data are pretty raw. They are Rorschach and thematic apperception tests (TAT) and biographies from almost any contemporaneous culture (Socrates never had a Rorschach) that is not too near home. And the idea of publishing them is to make it possible for anybody and everybody to use them free without a travel grant. Different hypotheses can be built on these primary records, and they can be tested out against each other, and analyses can be repeated with variations. See what Inkeles has to say about this matter. Is this good?

Well, *CP*, backed by George Miller who was backed by Norbert Wiener, has already taken the position that the great need in books is for more interpretation, more books to discover the significance of the books that have discovered the smaller significances of the articles that have the worked-over raw data in them. (*CP*, 1956, 1, 303.) Are we just going to collect data and hope that somebody's induction will operate on them to educe their significance, or should we discipline ourselves into designing the conditions for observation, collect the data with regard to the confirmation of some hypothesis, and publish the results only when we have success?

Psychologists are disagreed. Many an experimentalist says that raw data should not be published, not for his experiment. The data always transcend the records, and when the data are old their unrecorded contexts are lost. Besides, the data become less important

when fact and theory have changed and the observations are no longer relevant to testing the newer hypotheses.

On the other hand, these social scientists, concerned as they are with cultures that can not be picked from a catalogue and bought by mail, are hungry for facts, other people's observations. It is not possible for one man to collect all the data he needs, and anyhow there ought not to be duplication of effort. Bring these facts together into a pool, a series of pools, as fast as they can be collected, and then see whether putting them in this manner into science's common domain will not presently be making them yield significance.

So *CP* says, always insisting that the interpretative books be not forgot, that scientific enthusiasm ought to be given its head. Basic research has been proven worth while, and one attribute of basic research is that it is free: the investigator follows his enthusiasm without promise as to the result. A great many students of cultures want to have these records available. Good enough. Then they ought to have them. If the endeavor is not eventually productive, it will die of its own ineffectiveness.

What sort of data do people propose to get on microcards, besides these records of culture and personality? Many kinds. They want the primary records of therapeutic interviews and of personality assessments, the histories of child development and of anthropoid behavior, the details of the workings of projective techniques and of IQ records, accounts of dreams, records of events that would fill out the details of the history of psychology. Such things and many more. It is a projective technique in itself asking people what kind of data they wish they had. So let's go ahead if money is available. The ground for decision lies not in the certainty that these caches of raw data are good things, but in the uncertainty that they are bad things. They might work. This is science. No prediction is sure. Let your enthusiasm be your sanction.

—E.G.B.



I am uncomfortable with my model because it is not vague enough, because it seems ridiculous to be quite so specific.

—D. O. HEBB

When Disaster Strikes

Anthony F. C. Wallace

Human Behavior in Extreme Situations: A Survey of the Literature and Suggestions for Further Research. (Disaster Study No. 1; Publication No. 390.) Pp. v + 35. \$.75.

Lewis M. Killian, with the assistance of *Randolph Quick* and *Frank Stockwell*

A Study of Response to the Houston, Texas, Fireworks Explosion. (Disaster Study No. 2; Publication No. 391.) Pp. v + 25. \$.75.

Anthony F. C. Wallace

Tornado in Worcester: An Exploratory Study of Individual and Community Behavior in an Extreme Situation. (Disaster Study No. 3; Publication No. 392.) Pp. xi + 166. \$2.50.

Fred C. Iklé and *Harry V. Kincaid*

Social Aspects of Wartime Evacuation of American Cities: With Particular Emphasis on Long-Term Housing and Reemployment. (Disaster Study No. 4; Publication No. 393.) Pp. xii + 100. \$2.00.

Stewart E. Perry, *Earle Silber*, and *Donald A. Bloch*

The Child and His Family in Disaster: A Study of the 1953 Vicksburg Tornado. (Disaster Study No. 5; Publication No. 394.) Pp. vii + 62. \$1.50. Washington, D. C.: Committee on Disaster Studies, National Academy of Sciences-National Research Council, 1956.

Reviewed by DWIGHT W. CHAPMAN

Dr. Chapman is Professor of Psychology at Vassar College and Chairman of its Department of Psychology. Although he has an ancient background in psychophysics and statistics and in the study of perceptual processes, during the last fifteen years he has been concerned with practical social psychology—during the recent war with the Program Surveys Division of the Department of Agriculture, later with the Assessment Schools of the Office of Strategic Services, still later as a research director of the Washington Post and as an executive director of the Research and Development Board. Right now he is co-chairman of the Committee on Disaster Studies of the National Research Council.

THESE five monographs on various aspects of human behavior in time of disaster are the first of the series of official publications of the Committee on Disaster Studies of the National Research Council.

Like most committees, this one was spawned by trouble. (I speak without invidiousness, for I share its chairmanship with Dr. Carlyle Jacobsen—and he would agree.) From the end of World War II to the establishment of the present Civil Defense Administration, the Surgeons General of the military departments—particularly of the Army—had, and exercised, authority for research on human behavior relevant to the kinds of catastrophes that could readily be imagined as part of an atomic age. With the creation of Civil Defense as a separate agency, the armed services relinquished their main responsibilities in this field. They did so with some relief at being unburdened of a somewhat inappropriate care, and yet with some trepidation about the future of disaster research in the face of uncertainty about the vigorousness and durability of the new Agency.

Disaster research, indeed, was at that

time in poor condition to be left out on anyone's doorstep. A small handful of social scientists in this country were observing and analyzing disasters—but they were almost exclusively dependent on government grants for support in a kind of research that can become pretty expensive for a college professor, and their main contact with one another was through occasional conferences which the Surgeons General had sponsored. Take away this support, and the field might well have died.

Therefore, about four years ago, the Surgeons General of the Army, Navy, and Air Force asked the National Research Council to compose a committee to conduct and encourage research on "problems which might result from disasters caused by enemy action." The Committee was set up, and it has operated busily ever since, on grants from the Army, Civil Defense, Public Health, and the Ford Foundation. These reports

are the first of its major publications; they have been preceded by many less formal documents, research memoranda, bibliographies, and the personal publications of investigators whom the Committee supported.

In the light of nuclear war potential, the term *disaster* has, for any researcher nowadays, the connotation of Hiroshima multiplied by that factor of 10^3 which the hydrogen bomb has introduced. How do you study human behavior in such an unexperienced event? Well, you study available disasters, however limited they are, on the reasonable theory that a nuclear breakthrough to new dimensions does not leave the laws of human nature behind. You assume, for working purposes, that what people demonstrably do and need when they are threatened or struck by fire, tornado, shipwreck, epidemic, or an airplane crash is much of what they would do and need in any catastrophe. And since these lesser misfortunes occur with a regularity well known to newspapers and underwriters, the door of the laboratory is frequently open.

But it's a messy laboratory; and, however frequently it is available, it becomes so only after the fact. Nature performs your experiments, without advance notice; and Nature is a notoriously poor scientist, with a penchant for manipulating all variables simultaneously and labeling none of her charts. It is as good a mark of the maturing of research in this field as any that, in spite of these formidable difficulties, the average investigator of a disaster nowadays arrives on the confused scene with some hypotheses in mind and with some experience of devices for testing them. In contrast, research of a few years ago was much more journalistic, inadequate in its sampling and interviewing, lacking in a vocabulary of concepts, and meager in its conclusions.

IN *Disaster Study No. 1*, Wallace reviews the literature on disasters and—more importantly—formulates some particular problems in and for disaster research. He notes interestingly that a social-scientific analysis of disasters has undoubtedly been delayed by the fact that the social sciences work most familiarly with normal behavior in relatively



The explosion of twenty tons of black powder in a Houston, Texas, fireworks warehouse created a mushroom-shaped cloud.

—Photo by courtesy Bob Bailey, Houston, Texas
Houston Chronicle

stable social settings, whereas much of the problem in disaster is to predict and understand the less familiar behavior that takes place when a social field is going rapidly to pieces. He points out that a theoretical model (perhaps, really, a research-organizational model) of a disaster needs properly to be structured along dimensions of space (from the area of total impact of the catastrophic agent to the area of organized outside aid) and dimensions of time (threat, warning, impact, inventory of the situation, rescue, remedy, recovery periods). As one of the several special problems for disaster research, he calls attention to the 'disaster syndrome,' a phenomenon now firmly attached to that name and which denotes the dazed, passive, uncomplaining, dependent, and sometimes downright immobile behavior of victims of mass disaster, and which contrasts strikingly with the more actively anxious and demanding behavior of victims of individual accidents. It is one of the achievements of disaster research that expectations of this behavior are replacing the journalistically engendered predictions of *panic*, in the wild and popular sense of that word.

In *Disaster Study No. 2*, Killian and his associates report research on a fireworks explosion in Houston. This event, while it had little of the nature of a disaster—some black powder in a fire-

works factory blew up with few casualties—had the extraordinary interest that it produced a mushroom of smoke which a number of observers thought might be an atomic explosion. The very small sample of respondents in the study who did think it was an atomic bomb differed apparently from the others in that they used poorer forms of reality-testing to check their impression. Of interest for Civil Defense training, those who remained convinced differed in no reliable ways in their subsequent behavior from those who thought it a less threatening event.

Wallace's study of the Worcester tornado of 1953, in *Disaster Study No. 3*, permits him to exhibit a concrete instance of the application of his theoretical model-building. It moves systematically in time and space through the events of that disaster. Of particular interest is his discussion of the "cornucopia theory," the hypothesis that inefficiencies of rescue and rehabilitation in a disaster area are masked for both practical purposes and research by the American overabundance of aid that quickly converges on the area: "In disaster operations, when materiel and personnel are pouring out of a cornucopia, deluging the impact area, the results in rescue and rehabilitation are almost inevitably impressive." And he proceeds to think of some crucial implications of our usual expectation that an infinity of aid is available to any stricken population. "Does the faith in the cornucopia, as experienced in natural disasters, produce a tendency to think in terms of repair rather than prevention? Does the faith in the cornucopia tend to produce organizations which are better adapted to excess supply than to inadequate supply?" Embarrassing questions indeed for an atomic age!

Disaster Study No. 4, by Iklé and Kincaid, differs from the others in this series of five in treating a more purely sociological and ecological problem, that of efficient evacuation and billeting in the event that a metropolitan center must be quickly abandoned. It shows high awareness of the psychological problems involved in dumping one population on another, as analyzed by Titmuss in wartime England; but its main concern is that of studying the pertinence of community size, population density, housing, and transportation to problems which

must be solved in evacuation. A considerable section develops a mathematical technique for minimizing transportation to reception areas within known parameters of distance and available housing.

Perry and his associates, in *Disaster Study No. 5*, give us what I feel sure is our clearest and most conscientiously worked-out knowledge of the impact of disaster upon children. (Vicksburg suffered a virtually unheralded tornado which destroyed a movie theater full of children attending a late matinee.) The analysis of the authors' extensive interview data shows a skillful and judicious blending of clinical invention of important hypothesis with statistical testing. The most reliable findings are thus summarized: "Several experience variables seemed to be highly related to whether or not the child was upset by the tornado: (1) presence in the impact zone at the time of the tornado; (2) death or injury of family members; (3) personal injury to the child; (4) awareness of the tornado at the time it happened; (5) dissociative-demanding reactions to the parent in his relationship to the child at or soon after the time of impact. Pre-existing symptoms of emotional disturbance in the

parent was also related to emotional disturbance in the child. A difference in sex did not distinguish the disturbed child from the undisturbed child, but school-age children were more apt to be disturbed than pre-school children." Less reliably, but highly suggestively for future study, other findings indicate that there may be specially difficult problems of readjustment among children in families where the child cannot readily assume clear new roles to re-establish his solidarity with a secure environment, and in families where the unresolved anxieties of adults make it hard to face death frankly and to profit from the catharsis of talking it out.



These five studies give an excellent sample of the variety of preoccupations that presently constitutes disaster research. Anyone whose curiosity about a new field stirs him to read them will find them typically and pioneeringly tentative; but, with each of the many inadequacies that he will surely observe, I think his respect for the practical urgency of this kind of inquiry will rise.



THE DISASTER SYNDROME: PASSIVITY. A victim of the Worcester Tornado is being registered for transportation.—*Worcester Telegram-Gazette*



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Ego Therapy for Children

Hyman S. Lippman

Treatment of the Child in Emotional Conflict. New York: Blakiston Division, McGraw-Hill, 1956. Pp. x + 298. \$6.00.

Reviewed by NORMAN D. SUNDBERG

Dr. Sundberg has been Director of the University Child Guidance Clinic at the University of Oregon since the Clinic's foundation three years ago. He remarks that he is a Minnesota PhD with a MMPI bias and rapidly gaining an understanding of "dustbowl empiricism." He is up to his ears in clinical psychology—teaching, research, administration and writing. For one thing he and Leona Tyler are doing a book together on clinical psychology.

DR. LIPPMAN writes from rich experience with disturbed children. Beginning medical work in pediatrics, he turned to child psychiatry and had training in New York and also in Vienna with Anna Freud and August Aichhorn. For over 25 years he has been with the Wilder Clinic in St. Paul.

The main purpose of his book is a presentation of principles and examples of therapeutic practice with children. Psychoanalytic in orientation, it is directed toward the large audience of child-guidance clinicians whose service load is such that intensive treatment is out of question. Lippman presents introductory and concluding chapters summarizing his approach to treatment and prevention, but the meat of the sandwich is in his well-illustrated sections on the neurotic child, the child with personality problems, the child who acts out, and the child with a tenuous hold on reality.

Lippman's point of view is that therapy in a child-guidance clinic is essentially ego therapy dealing with conscious and preconscious material. He advocates the strengthening of the ego through suggestion, support, abreaction, environmental manipulation, and clarification. He considers the child's dreams as very useful in understanding unconscious conflicts, which the therapist can bring up later for free discussion and explanation. The therapist may scold and challenge the

child in order to motivate him. Lippman advocates a variety of play and interview techniques in therapy spiced with lightness and humor. Most basic is the therapist's warmth and interest. Treatment involves concurrent casework with parents whenever possible. Treatment may, however, proceed with cooperative children even when parents object. Lippman makes a strong point that parents must be respected, not blamed.

The theoretical line, interwoven among the descriptions and illustrations of practice, is close to the orthodox. The author pays considerable attention to explanation in terms of conflicts of the ego with the id and superego and to castration anxiety. He, incidentally, does not see the superego as being established by a certain early age but finds it often unstable until the twenties. There is not a trace of Sullivan, Horney, or Adler in the book, though the author is aware of the importance of social and interpersonal factors in the customary understanding of child guidance.

THE reviewer found the most interesting parts of the book to be the chapters on the child with obsessional neurosis and on the "psychopath." The former chapter is valuable for its detailed presentation of the case of 10-year-old Ralph, with alternating passages describing Ralph's behavior on successive appointments and the therapist's activity and interpretations. The literature on psychotherapy needs much more reporting like this. It even has some advantages over the verbatim reporting of Axline, Moustakas, Rogers, and others, since one can more readily grasp the broader trends in the case. The chapter on the so-called psychopathic child is valuable because of its synthesis of the literature

and its account of the author's observations of Aichhorn's methods of treatment. Of particular interest is Aichhorn's approach to the cunning, exhibitionistic, fourflushing delinquent he termed the *Hochstapler*. With such children, Aichhorn would build up a relationship by demonstrating that he was more clever than the delinquent and knew more about methods of outwitting the law.

Lippman emphasizes the interdisciplinary nature of child work. One of the members of the team at the Wilder Clinic is a group therapist. Nearly every child is in group therapy, though he may have individual treatment also. In discussing cases, and also in the chapter on prevention, Lippman is very strong in his advocacy of the use of social-work services. The psychologist will find very little in the book about his role other than a few paragraphs on diagnostic testing and coordination with the schools. The pediatrician and general physician will find the book of value in understanding child-guidance work, but of less direct value in handling milder emotional problems in the office. There is no mention of pharmaceutical or somatic therapies nor discussion of psychosomatic conditions.

Where does the book fit in the general bookshelf on child therapy? It is a welcome addition to Allen, Axline, Anna Freud, Hamilton, Jackson and Todd, Klein, Moustakas, Rogers, Rogerson, and Witmer. It is valuable, especially for its presentation of analytically oriented child-guidance practice, which none of the others cover in the same manner, and for its wealth of clinical cases. A psychological scientist looking over all of these works finds the current state of child therapy and child guidance disheartening. Even in this most interdisciplinary of fields, few of these writers appear to be aware of what is going on in other lines of research and theory. Lippman's references, for instance, are almost all confined to analytic literature. It is sad to see decades of work in child development, family relations, cultural variables, etc., incorporated so little into the thinking of therapists. It is also sad to see very little careful checking on the assumptions put to daily use by the busy clinic. Saddest of all it is to search in vain for one good research study on child therapy itself.

Of, From, and To the Heart

George Lawton

Straight to the Heart: A Personal Account of Thoughts and Feelings While Undergoing Heart Surgery. (With a special supplement by Ethel Lawton.) New York: International Universities Press, 1957. Pp. xxiv + 347. \$5.00.

Reviewed by JOHN E. ANDERSON

who is the well-known Professor of Psychology at the University of Minnesota's Institute of Child Welfare and until 1954 the director of the Institute. CP thinks that his interest in gerontology also qualifies him to assess a personal document of this sort.

How does a psychologist feel when death approaches? How does he feel after a dangerous heart operation

brings him back to life and renewed energy? How does his wife feel under this stress and recovery? These are the questions answered in this personal document.

It is a thriller that contains tragedy and joy, anxiety and elation, not only in George Lawton's personal descriptions of his reactions under stress and recovery, but also in his accounts of other patients in the hospital ward awaiting or surviving heart surgery. Ethel Lawton sees the preliminaries, the operation, and the outcome from a different point of view both as a person and in her role as wife.

When Lawton is describing his own thoughts, feelings, and experiences, the account moves swiftly. But when he uses a somewhat ponderous literary form partially to disguise his early experiences

with physicians who failed to diagnose or appreciate the seriousness of his condition, the account does not move so smoothly. Yet there is a substantial indictment, not of individuals but of diagnostic inadequacies and of the somewhat accidental manner in which a person in our society locates an expert who knows what to do and how to do it.

The book expresses the need for trained clinical psychologists on hospital staffs to aid in preparing patients and relatives for the very serious business of heart operations by answering their questions, calming their fears, and giving wise counsel and emotional support. The book is also a tribute to the miracles of modern medicine and to the skill of heart surgeons working as teams.



It would seem either that the physical and psychological explanations of mental states cannot both be right, or that, if they are, there must be some logical expression of their relationship to each other.

—SIR RUSSELL BRAIN



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FILMS

By ADOLPH MANOIL, Film Editor

Reviews of Films

AUDIO-VISUAL INSTRUCTION

Film Research and Learning

Walter A. Wittich. 16-mm. motion picture film, black and white, sound, 14 min., 1956. Available through Dr. Walter A. Wittich, 870 Waban Hill, Madison, Wisconsin. \$78.00.

Teaching effectiveness could be increased through the adequate use of audio-visual aids, especially the 16-mm. motion-picture film. Teaching as a process of communication depends as much on the communicator as on the audience. The audience, however, in most classroom teaching situations is known as to its level, background, and capabilities. This means that teaching effectiveness can be increased through improved presentation of subject-matter at the level of the communicator. The 16-mm. motion-picture film as a teaching aid should improve teaching by the simple fact that it provides pictorial, concrete illustrations, in terms more familiar to the audience. It represents, moreover, an additional nonverbal dimension in the communication process. Teaching with audio-visual aids should enrich the presentation, and consequently provide for better reception of the message.

The simple enrichment of the presentation of subject matter is, however, no guarantee of teaching effectiveness. Special procedures for presentation, the quality of the film used and its relevance to the area under study represent supplementary conditions that should be satisfied.

The film produced by Dr. Wittich, *Film Research and Learning*, represents a valuable contribution to the understanding of the use of films in teaching at various levels.

The film presents research results in

the areas of reading, science, social studies and related fields. These results show that instruction through the use of films actually improves learning. The film, moreover, through the presentation of actual classroom situations, demonstrates adequate procedures for the effective use of teaching films. References to the relationship between film presentation, the level of the class and learning principle are also given.

The film is designed as a means of information and training for teachers, audio-visual supervisors, and administrators. It should be particularly useful for teacher training and teaching methodology in general.

The film could be profitably employed with classes in educational psychology, and as a means for in-service training for new teachers. It could also be used as a source for discussion of various learning situations as relevant to audio-visual instruction in general.

VISUAL PERCEPTION

Optical Motions and Transformations as Stimuli for Visual Perception

J. J. Gibson. 16-mm. motion picture film, black and white, silent, 25 min., 1956. Available through Psychological Cinema Register, The Pennsylvania State University, University Park, Penna. \$60.00; rental \$3.00

The film demonstrates the effects of optical motions and geometric transformations on perception.

A body moving in space can be analyzed into components of translation and rotation. Non-rigid motion can also be observed. The perception of motion is predicated on optical motions defined as "changes in the patterning of the light which is reflected from the surface of the object" as it moves.

Various types of optical motions are

illustrated as well as transformations due to similarity and perspective. These transformations are defined as projections on one plane of a form or pattern lying on another plane, such that the projections in depth represent a series of continuous transformations.

Transformation with parallel projection and polar projection of a slanted object are illustrated.

Discrimination of moving transformation is demonstrated through an experiment on the perception of change of slant.

With the use of different objects, it is shown that moving transformations yield clear impressions of the changing slant.

In conclusion, "moving transformations are seen with great precision."

The film can be used in connection with the study of visual perception.

Films and Other Materials

1. *Anger at Work*. 16-mm., black and white, sound, 21 min., 1956. Available through International Film Bureau, 57 East Jackson Blvd., Chicago 4, Illinois. \$125.00.
2. *Film Learning and Research*. 16-mm., black and white, sound, 1956. Available through Dr. Walter A. Wittich, 870 Waban Hill, Madison, Wisconsin.
3. *Help Before Headlines*. 16-mm., black and white, sound, 11 min., 1955. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Pennsylvania. \$45.00, rental \$2.00.
4. *Margin of Safety: Psychological Distance Under Danger*. 16-mm., black and white, silent, 16 min., 1955. Available through Psychological Cinema Register, The Pennsylvania State University, University Park, Pennsylvania. \$38.50 rental \$3.00.
5. *Meaning of Child Art*. 16-mm., color, sound, 10 min., 1955. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Pennsylvania. \$92.00, rental \$3.00.
6. *Mind and Medicine: Parts I and II*. 16-mm., black and white, sound, 45 min., 1955. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Pennsylvania. (Showings restricted.) Service charge \$1.50.
7. *Sexual Behavior in Laboratory Monkeys (Macaca Mulatta)*. 16-mm., color, sound, 30 min., 1955. Available through

Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Pennsylvania. (Showings restricted.) \$200.00, rental \$8.00.

8. *Talking Sense*. A series of six films, each 16-mm., black and white, sound, 30 min., 1956. The films in the series are:

Just what is general semantics?

Do you know how to make a statement of fact?

Why do people misunderstand each other?

What is a good observer?

On the difference between words and things

The man who knows it all

Available through Indiana University NET Film Service, Audio-Visual Center, Bloomington, Indiana.

9. *Understanding Numbers*. A series of six films, each 16-mm., black and white, sound, 30 min., 1956. The films in the series are:

The earliest numbers

Base and place

Short cuts

Fundamental operations

Big numbers

Fractions

New numbers

Available through Indiana University, NET Film Service, Audio-Visual Center, Bloomington, Indiana.



A *Case Study of Multiple Personality*. (Corbett H. Thigpen and Hervey M. Cleckley.) 16-mm., black and white or color, sound, 30 min., 1956. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Penn. \$125.00, rental \$5.00; color, \$245.00, rental \$9.00. (Showings restricted.)

A *Communication Primer*. Museum of Modern Art. 16-mm., color, sound, 22 min., 1953. Available through Museum of Modern Art, 11 West 53rd St., New York 16, N. Y., and other distributors.

Biography of the Unborn. (M. Edwards Davis and Edith L. Potter.) 16-mm. black and white, sound, 16 min., 1956. Available through Encyclopedia Britannica Films, Wilmette, Illinois, and other distributors. \$75.00.

Career: Medical Technologist. 16-mm. black and white, or color, sound, 24 min., 1956. Available through Educational Film Library Association, 345 East 46 St., New York 17, N.Y. \$75.00, color \$150.00.

Making Yourself Understood. Encyclopedia Britannica Films. 16-mm., black and white, sound, 14 min., 1953. Available through

Encyclopedia Britannica Films, Wilmette, Illinois, and other distributors. \$62.50.

Optical Motions and Transformations as Stimuli for Visual Perception. (J. J. Gibson.) 16-mm., black and white, silent, 25 min., 1956. Available through Psychological Cinema Register, The Pennsylvania State University, University Park, Penn. \$60.00, rental \$3.00.

Project G. (The City College Institute of Film Techniques.) 16-mm. black and white, sound, 15 min., 1956. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Penna. \$85.00, rental \$3.00.

Stress. (National Film Board of Canada.) 16-mm., black and white, sound, 11 min., 1957. Available through McGraw-Hill Book Co., Text-Film Department, 330 West 42nd St., New York 36, N.Y. \$60.00.

The Time Characteristics of Human Skill. (R. Conrad.) 16-mm., black and white, sound, 20 min., 1956. Available through Applied Psychology Research Unit, 15, Chaucer Road, Cambridge, England. \$45.00.

Their First Teachers. (Hans Richter). 16-mm., black and white, sound, 15 min., 1956. Available through Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Penna. \$75.00, rental \$3.00.

REFERENCE

INTERDEPARTMENTAL COMMITTEE ON MEDICAL TRAINING AIDS (ICMTA), Film reference guide for medicine and allied sciences. Washington, D. C.: Library of Congress, 1956. Pp. 51. (For sale by the Card Division, Library of Congress, Washington 25, D. C., 45 cents.)



ADJUSTMENT

Borderline. 16-mm. black and white, sound, 30 min., 1956. Produced by the National Film Board of Canada. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y.

The film presents characteristic aspects of emotional adjustment in a teen-age girl. Educational and remedial means are also presented.

Boy With a Knife. 16-mm. black and white, sound, 1957. Available through International Film Bureau, 57 East, Jackson Blvd. Chicago 4, Illinois.

Characteristic behavioral patterns of

a gang of teen-agers, and the nature of the necessary social work are shown.

The film is developed around a boy who presents emotional and social problems.

ADDICTION

Kid Brother. 16-mm. black and white, sound, 25 min., 1956. Written by Irving Jacoby; directed by Alexander Hemmid. M. Ralph Kanfman, Raymond McCarthy, and Ralph W. Daniel, consultants. Affiliated Films, producer. 16-mm. motion picture film, black and white, sound, 25 min., 1956. Available through Mental Health Film Board, 166 East 38th St., New York, N. Y. \$145.00.

The film analyzes the problem of teenage drinking, and home adjustment.

Monkey on the Back. 16-mm. black and white, sound, 30 min., 1955. Produced by the National Film Board of Canada. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y.

A documentary film on the life of a drug addict. The film presents the general problem of addiction in its social and individual aspects.

THERAPY

Diagnosis of Childhood Schizophrenia. 16-mm. black and white, sound, 35 min., 1956. Produced under the supervision of Abraham A. Fabian, for the Brooklyn Juvenile Guidance Center, Inc. N. Y. Available through New York University Film Library. \$135.00; rental \$10.00 per day.

"This film traces the step-by-step procedure of screening clinical data in order to establish the diagnosis of childhood schizophrenia."

CONFLICT

Conflict. 16-mm. black and white, sound, 18 min., 1956. K. C. Montgomery, collaborator. Gerald McClearn and Marshall Segall, technical advisors. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y. \$110.00.

The film demonstrates under laboratory conditions four types of conflict in rats. Demonstrations are supplemented with scenes from everyday situations that present characteristic conflictual situations.



LEARNING AND REINFORCEMENT

Controlling Behavior Through Reinforcement. 16-mm. black and white, sound, 16 min. 1956. K. C. Montgomery, collaborator R. J. Herrnstein and William H. Morse, technical advisors. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y. \$95.00.

A series of experiments with pigeons demonstrates the effect on learning of various reinforcement schedules. Applications to school situations are also presented.

Learning Discriminations and Skills. 16-mm. black and white, sound, 10 min., 1956. K. C. Montgomery collaborator. R. J. Herrnstein and William H. Morse, technical advisors. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y. \$60.00.

Laboratory experiments with pigeons demonstrate discrimination of stimuli and differential responses. Similar learning conditions in humans are also shown.

Reinforcement in Learning and Extinction. 16-mm. black and white, sound, 8 min., 1956. K. C. Montgomery, collaborator. Richard J. Herrnstein and William H. Morse, technical advisors. Available through Text-Film Department, McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y. \$50.00.

Basic principles of learning are demonstrated through laboratory experiments with pigeons. Applications to learning behavior in children are also presented.

RADIO

Cultural Radio Broadcasts. Some Experiences. UNESCO: Clearing House. Department of Mass Communication. Reports and Papers on Mass Communication. Dec. 1956, No. 23. Pp. 59.

Research Materials

Film Utilization

PHILIP ASH and NATHAN JASPEN. *Optimum physical viewing conditions for a rear projection daylight screen.* Tech. Rep. No. 269-7-37, 1953. Pp. 17.

PHILIP ASH and NATHAN JASPEN. *The effects and interaction of rate of development, repetition, participation and room illumination on learning from a rear-projected film.* Tech. Rep. No. 269-7-39, 1953. Pp. 20.

PAUL M. HURST, JR. *Relative effectiveness of verbal introductions to kinescope recordings and training films.* Tech. Rep. No. 269-7-42, 1955. Pp. 24.

BERNARD RIMLAND (principal investigator). Report prepared by Charles J. McIntyre and H. Dennis Sherk. *Effectiveness of several methods of repetition of films.* Tech. Rep. No. 269-7-45, 1955. Pp. 25.

MALCOLM MCNIVEN. *The effects of learning of the perceived usefulness of the material to be learned.* Tech. Rep. No. 269-7-54, 1955. Pp. 33.

L. P. GREENHILL. (Procedures developed by L. P. Greenhill and L. F. Kepler, Jr.) *The recording of audience reactions by infra-red photography.* Tech. Rep. No. 269-7-56, 1955. Pp. 11.

ROBERT RADLOW. *The relation of some measures of ability to measures of learning from motion pictures.* Tech. Rep. No. 269-7-58, 1955. Pp. 14.

Attitudes and Emotions

ELIZABETH MAYS STEIN, principal investigator. (Report prepared by Charles J. McIntyre). *Effect of mental hygiene films on normal and abnormal individuals.* Tech. Rep. No. 269-7-47, 1955. Pp. 12.

ROBERT W. SCOLLON, JR. *The relative effectiveness of several film variables in modifying attitudes: a study of the application of films for influencing the acceptability of foods.* Tech. Rep. No. 269-7-60, 1956. Pp. 33.

Film Production

C. J. MCINTYRE, E. P. MCCOY, L. P. GREENHILL, J. A. MURNIN, and L. F. KEPLER (Report prepared by C. J. McIntyre and E. P. McCoy). *The application of sound motion pictures for recording billet analysis information.* Tech. Rep. No. 269-7-41, 1954. Pp. 15.

H. E. NELSON and A. W. VANDERMEER. *The relative effectiveness of differing commentaries in an animated film on elementary meteorology.* Tech. Rep. No. 269-7-43, 1955. Pp. 19.

EDWARD P. MCCOY. *An application of research findings to training film production.* Tech. Rep. No. 269-7-44, 1955. Pp. 29.

L. P. GREENHILL and L. F. KEPLER, JR. (Report prepared by L. P. Greenhill). *A study of the feasibility of local production of minimum cost sound motion pictures.* Tech. Rep. No. 269-7-48, 1955. Pp. 43.

S. V. KALE and J. H. GROSSLIGHT. (Report prepared by J. H. Grosslight and C. J. McIntyre). *Explanatory studies in the use of pictures and sound for teaching foreign language vocabulary.* Tech. Rep. No. 269-7-53, 1955. Pp. 57.

RICHARD M. FLETCHER. *Profile analysis and its effect on learning when used to shorten recorded film commentaries.* Tech. Rep. No. 269-7-55, 1955. Pp. 26.

The volume is supplemented with a summary of sixty-five instructional Film Research Reports, and L. P. GREENHILL, *Final report instructional film research program.* Pp. 25.

TV RESEARCH

Instructional Television Research Reports.

Port Washington, L. I., N. Y.: U. S. Naval Training Device Center Tech. Rep. No. 20-TV-4, 1956. This volume includes the following research reports:

ROBERT T. ROCK, JR., JAMES S. DUVA, and JOHN E. MURREY. *The effectiveness of television instruction in training naval air reservists (Rapid mass learning).* Tech. Rep. No. 476-02-52, 1951. Pp. iv-68.

ROBERT T. ROCK, JR., JAMES S. DUVA, and JOHN E. MURREY. *A study of learning and retention from television instruction transmitted to army field force reservists.* Final project report. Tech. Rep. No. 20-TV-1, 1952. Pp. iv-50.

ROBERT JACKSON. *Learning from kinescopes and films.* Tech. Rep. No. 20-TV-1, 1952. Pp. iv-15.

PAUL M. HURST, JR. *Relative effectiveness of verbal introductions to kinescope recordings and training films.* Tech. Rep. No. 269-7-42, 1955. Pp. 24.

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MARTIN F. FRITZ, JAMES E. HUMPHREY, J. A. GREENLEE, and RALPH L. MADISON. *Survey of television utilization in army training. Final report.* Tech. Rep. No. 530-01-1, 1952. Pp. 142.

Fundamentals of training by television, 1952. Pp. 26.



The poet and the scientist are not rivals, but equal and trustworthy partners in the task of teaching man, through insight, to see others as he sees himself, and, through objectivity, to see himself as others see him.

—HENRY MEYERS



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- BALINT, MICHAEL. *The doctor, his patient and the illness*. New York: International Universities Press, 1957. Pp. xii + 355. \$7.50.
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